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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,119	03/16/2004	Douglas Gibbons Young	C-2469Re	2838

7590 05/04/2005

Stephen A Schneeberger
49 Arlington Road
West Hartford, CT 06107

EXAMINER	
DEBERADINIS, ROBERT L	
ART UNIT	**PAPER NUMBER**
2836	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/802,119	YOUNG ET AL.
	Examiner	Art Unit
	Robert DeBeradinis	2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Reissue Applications

In accordance with 37 CFR 1.175(b)(1), a supplemental reissue oath/declaration under 37 CFR 1.175(b)(1) must be received before this reissue application can be allowed.

The Supplemental Preliminary Amendment was filed after the Declaration was submitted.

Claims 12-19 are rejected as being based upon a defective reissue Declaration under 35 U.S.C. 251. See 37 CFR 1.175. The nature of the defect is set forth above.

Receipt of an appropriate supplemental oath/declaration under 37 CFR 1.175(b)(1) will overcome this rejection under 35 U.S.C. 251. An example of acceptable language to be used in the supplemental oath/declaration is as follows:

> "Every error in the patent which was corrected in the present reissue application, and is not covered by a prior oath/declaration submitted in this application, arose without any deceptive intention on the part of the applicant."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 13, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by MAO 6,198177.

Regarding claims 12, 13.

MAO discloses a first power source (primary source) providing sufficient power to supply the AC load (load inherently critical because of the backup required); a second source (energy storage source) the second power source providing sufficient power to supply the critical

load and adapted to be normally substantially continuously connected and providing power to, the critical load; a static switch for selectively connecting and disconnecting the first power source to the second power source and to the critical load (column 6, lines 32-43); and a switch controller (inherent to control modes of operation, column 5) for controlling the state of the static switch to connect the first power source with the critical load and the second power source during normal operation of the first power source and to rapidly disconnect the first power source from the critical load and the second power source it and when operation of the first power source deviates beyond a limit from normal.

Regarding claim 16.

MAO discloses incoming AC power (lines 26 +) inherently meaning power from the grid.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11, 14, 15, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over MAO 6,198,177 in view of WELCHES US 2003/0012038.

Regarding claims 1, 3, 9, 10.

MAO discloses a first power source (primary source) providing sufficient power to supply the AC load (load inherently critical because of the backup required); a second source (energy storage source) the second power source providing sufficient power to supply the critical

load and adapted to be normally substantially continuously connected and providing power to, the critical load; a static switch for selectively connecting and disconnecting the first power source to the second power source and to the critical load (column 6, lines 32-43); and a switch controller (inherent to control modes of operation, column 5) for controlling the state of the static switch to connect the first power source with the critical load and the second power source during normal operation of the first power source and to rapidly disconnect the first power source from the critical load and the second power source it and when operation of the first power source deviates beyond a limit from normal.

MAO does not disclose wherein a second power source comprises at least one fuel cell power plant.

WELCHES teaches the power source (10) is a fuel cell, which provides power to the main DC/DC converter switches (40) and to the battery dc/dc converter switches (30), paragraph 69.

It would have been obvious to one having ordinary skill in the art at the time of this invention to modify the backup AC power supply and method of operation disclosed by MAO to add a fuel cell to the second source. The motivation would be to provide an efficient source of local power (paragraph 6) to increase the energy requirement for the second source.

Regarding claim 2.

MAO teaches a static switch for selectively connecting and disconnecting the first power source to the second power source and to the critical load (column 6, lines 32-43); and a switch controller (inherent to control modes of operation, column 5) for controlling the state of the static switch to connect the first power source with the critical load and the second power source

during normal operation of the first power source and to rapidly disconnect the first power source from the critical load and the second power source it and when operation of the first power source deviates beyond a limit from normal.

Regarding claims 4, 5, 14, 15.

MAO in view of WELCHES discloses the system of claim 1.

MAO discloses the power system of claim 12.

MAO is silent wherein the static switch is a solid-state device.

WELCHES teaches a power conditioning and inverting system for improved and efficient power generation wherein independently controlled dc links allow use of IGBT, or even thyristor based input inverters (paragraph 30).

It would have been obvious to one having ordinary skill in the art at the time of this invention to use solid state switching devices for the switching device disclosed by MAO. The motivation would have been to take advantage of the benefits solid state switching devices have for high power fuel cell fed power conditioning inverter systems (paragraph 30).

Regarding claim 6.

MAO in view of WELCHES disclose the power system of claim 1.

MAO in view of WELCHES disclose wherein the first power source is a utility power grid wherein each fuel cell power plant includes a power conditioning system for configuring operation of the respective fuel cell in a grid connection mode or in a grid independent mode in response to mode control signals (obviously included for controlling MAO'S control switches).

WELCHES discloses site management controller (295) providing the mode control signals to the fuel cell power conditioning system whereby the fuel cell power plants rapidly transition operation between the grid connection and the grid independent modes (paragraph 72). Regarding claims 7, 8, 11.

MAO in view of WELCHES discloses the power system of claims 1, 6.

WELCHES teaches solid state switches and the benefits solid state switching devices have for high power fuel cell fed power conditioning inverter systems but is silent as to switching transient times.

The Examiner takes official notice. Switching transient times for solid state switching devices are well documented for the different solid state switching devices.

It would have been obvious to one having ordinary skill in the art at the time of this invention to use the switching device having the speed required. The motivation for selecting switching devices with fast transient times would to satisfy the rapid transitioning requirements for the system.

Regarding claims 17-19.

MAO discloses the power system of claims 12, 16.

MAO is silent as to solid state switches and to switching transient times

WELCHES teaches solid state switches and the benefits solid state switching devices have for high power fuel cell fed power conditioning inverter systems but is silent as to switching transient times.

The Examiner takes official notice. Switching transient times for solid state switching devices are well documented for the different solid state switching devices.

It would have been obvious to one having ordinary skill in the art at the time of this invention to use the switching device having the speed required. The motivation for selecting switching devices with fast transient times would to satisfy the rapid transitioning requirements for the system.

Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (571) 272-2049. The Examiner can normally be reached Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Brian Sircus, can be reached on (571) 272-2058. The Fax phone number for this Group is (703) 872-9306.

RLD

MAY 2, 2005

ROBERT L. DEBERADINIS
PRIMARY EXAMINER